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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER	
QI, Z	
ART UNIT	**PAPER NUMBER**
2871	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/256,180	Applicant(s) SEO ET AL.	
	Examiner Mike Qi	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *the supplemetal response of Aug.10,2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) *6-8,10,20,26,28 and 30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9,11-19,21-25,27,29 and 31-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *11* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

In Fig.1, a label --Prior art-- is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-5, 21-23 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 5-297412.

Claims 1 and 33, JP 5-297412 discloses (col. 5 lines 6-31, and Figs.1-8, especially in Fig.4) that a construction of the liquid crystal display device comprising:

(concerning claim 33)

- first and second substrates (20 and 32) facing each other;
- a liquid crystal layer (30) between the first and second substrates (20 and 32);
- a plurality of gate bus lines (12) arranged in a first direction on the first substrate (20) and a plurality if data bus lines (10) arranged in a second direction on the first substrate (20) to define a pixel region (16);

- a pixel electrode (16a) electrically charged through the data bus line (10) in the pixel region (16);
- a common-auxiliary electrode (18a) surrounding the pixel electrode (16a) on a same layer whereon the gate bus line (12a) is formed;

(concerning claim 1)

- a passivation layer (26) on the gate insulator (22) over the whole first substrate (20);
- a light shielding layer (black matrix 38) on the second substrate (32);
- a color filter layer (40) on the light shielding layer (38);
- a common electrode (36) on the color filter layer (40);
- an alignment layer (34 and 28) on at least one substrate between the first and second substrates (20 and 32).

Claim 3, JP 5-297412 discloses (Fig. 4) that the pixel electrode (16) and the auxiliary electrode (18) forming a capacitor, so that the pixel electrode (16) and the auxiliary electrode (18) also function as storage electrodes. Therefore, inherently, the storage electrode (also is a pixel electrode) overlapping the auxiliary electrode (18) to form a capacitor.

Claim 4, JP 5-297412 discloses (Fig.4) that the pixel electrode (16) overlaps the common-auxiliary electrode (18).

Claim 5, JP 5-297412 discloses (in Fig.4) that the light shielding layer (38) overlaps the common-auxiliary electrode (18).

Claims 21-23, JP 5-297412 discloses (col.1, lines 26-31; col.2, lines 34-39; col.4, lines 30-36) that the common-auxiliary electrode, the pixel electrode and the common electrode include a material selected from ITO (indium tin oxide).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-297412 in view of US 5,694,185 (Oh).

Claim 34, all the limitations disclosed in the JP 5-297412 (see the explanation above) except for the n-line thin film transistor at a crossing area of the gate and data bus lines.

However, Oh discloses (in the Abstract and Fig.3) that an non-linear (n-line) thin film transistor (TFT 70) at a crossing area of the gate bus line (50) and the data bus line (60), so as to increase the aperture ratio.

Therefore, it would have been obvious to those skilled in the art at time the invention was made to form an n-line TFT as claimed in claim 34 for achieving an increased aperture ratio.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-297412 as applied to claims 1, 3-5, 21-23 and 33 above, and further in view of US 5,907,376 (Shimada et al).

Claim 9, the common electrode is connected to a common potential that is conventional. Therefore, the common-auxiliary electrode is connected to the common electrode to set the common potential for the common-auxiliary electrode is conventional too.

Shimada discloses (col.5, lines 45-56) that the common electrode (15) is connected to the auxiliary capacitance signal line (19) (as the common-auxiliary electrode) on the active matrix substrate would be an evidence.

Therefore, it would have been obvious to those skilled in the art at the time the invention was made to connect the common-auxiliary electrode with the common electrode as claimed in claim 9 for setting the common potential.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-297412 as applied to claims 1, 3-5, 21-23 and 33 above, and further in view of US 5,528,396 (Someya et al).

Claim 19, the passivation layer functions as a protection layer and includes a material selected from an organic material that is conventional.

Someya discloses (col.13, lines 61-65) that the protection film (passivation layer) is formed of acrylic resin would be an evidence.

Therefore, it would have been obvious to those skilled in the art at the time the invention was made to select a material, e.g. acrylic resin, forming the passivation layer as claimed in claim 19 for protecting the liquid crystal layer.

8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-297412 as applied to claims 1, 3-5, 21-23 and 33 above, and further in view of US 4,448,492 (Huffman).

Huffman discloses (col.6, lines 44-45) that the nematic liquid crystals can have either a positive or negative dielectric anisotropy, and that was common and known in the art as referring to the net dielectric anisotropy where mixtures are used.

Therefore, it would have been obvious to those skilled in the art at the time the invention was made to use the liquid crystal molecules having negative dielectric anisotropy as claimed in claim 29.

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-297412 as applied to claims 1, 3-5, 21-23 and 33 above, and further in view of US 5,249,070 (Takano).

Claim 32, Takano discloses (in the Abstract) that using a chiral dopant in twisted nematic liquid crystal material to achieving a first tilt domain and a second tilt domain of the liquid crystal material exist when a sufficient voltage is applied to the electrodes.

Therefore, it would have been obvious to those skilled in the art at the time the invention was made to use chiral dopants as claimed in claim 32 for achieving the multi-domain liquid crystal display.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-5, 9, 11-19, 21-25, 27, 29, 31-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-44 of U.S. Patent No. 6,100,953.

Although the conflicting claims are not identical, they are not patentably distinct from each other because all the limitations in the independent claims 1, 33 and 34 of the application are included by the claims 1-44 of the US patent 6,100,953.

The dependent claims of the application in which some wording is different from the US patent, but it is an obviousness-type double patenting.

Especially, Claims 24-25 and 27 of the application have the same limitations as the claims 14-15 and 17. Claim 31 of the application has a slight wording difference from the claim 32 of the US patent as "a negative biaxial film on at least one substrate" and "a negative biaxial

film between the first substrate and a polarizer, and/or between the second substrate and a polarizer", and that are at least an obviousness-type difference. Claim 16 of the application has a slight wording difference from the claim 37 of the US patent as "the color filter has an electric field inducing window inside of itself" and "the color filter layer having a plurality of holes exposing portion of the second substrate", and that are at least an obviousness-type difference.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Qi whose telephone number is (703)308-6213 .

Mike Qi
October 11, 2001

William L. Sikes
Supervisory Patent Examiner
Technology Center 2800